

STEREO INTEGRATED AMPLIFIER
KA-2060R/3060R
 SERVICE MANUAL

KENWOOD

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 B51-4863-00(K) 2710

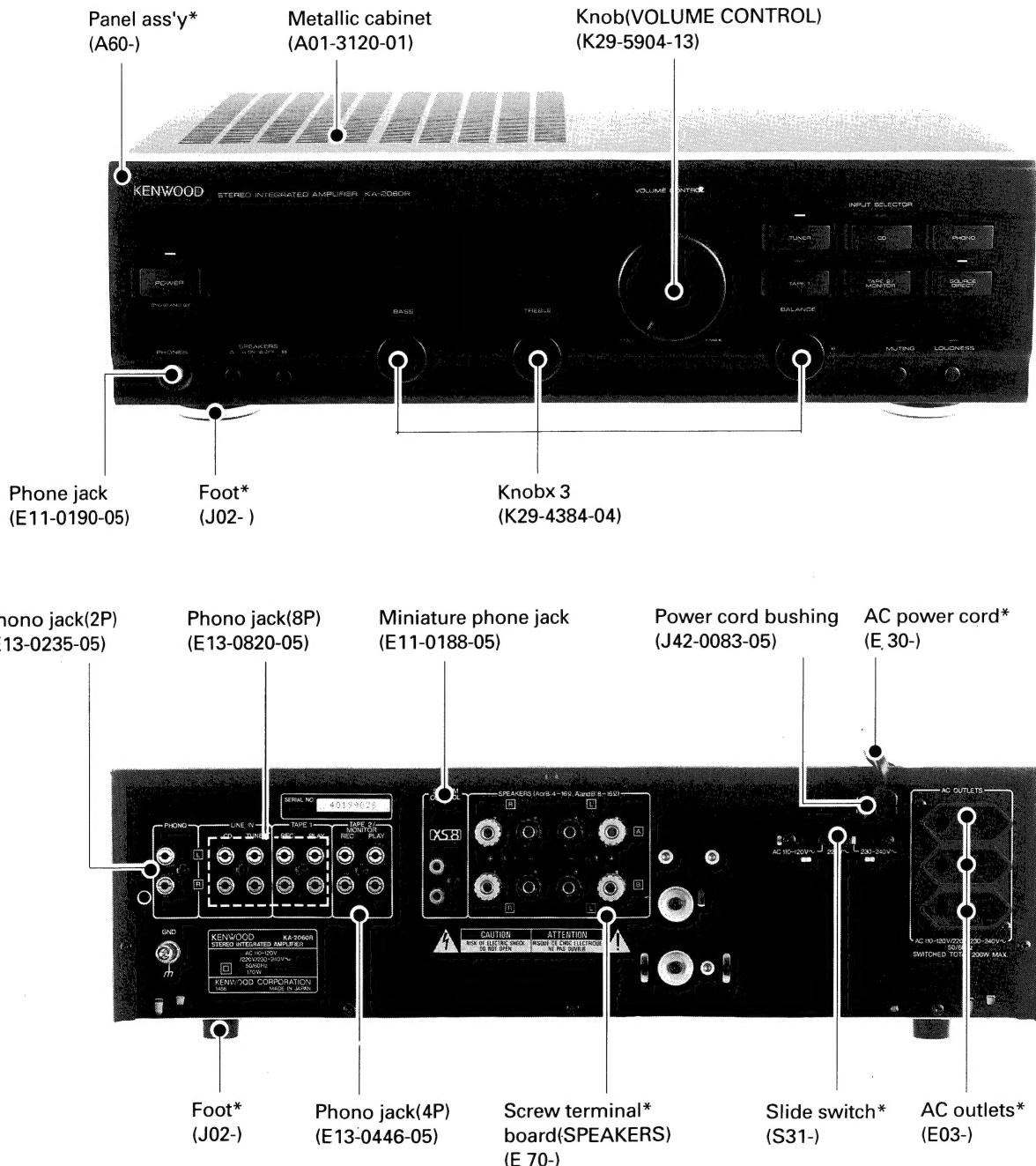


Photo is KA-2060R.

*Refer to parts list on page 16.

Caution : Signal ground floats from chassis ground. Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and/or measure the voltage.(Don't connect ground of unit.)

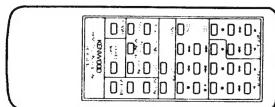
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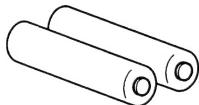
For remote control and new M-con M37470M4 - 189SP
(X09 : IC4), Please refer to the manual of KA - 4060R.

Accessories

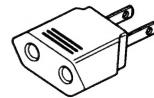
- Remote control unit 1
(A70 - 0979 - 05)
- Battery cover : (A09 - 0159 - 08)



- Batteries (R03 / UM - 4 / "AAA") 2
(-)



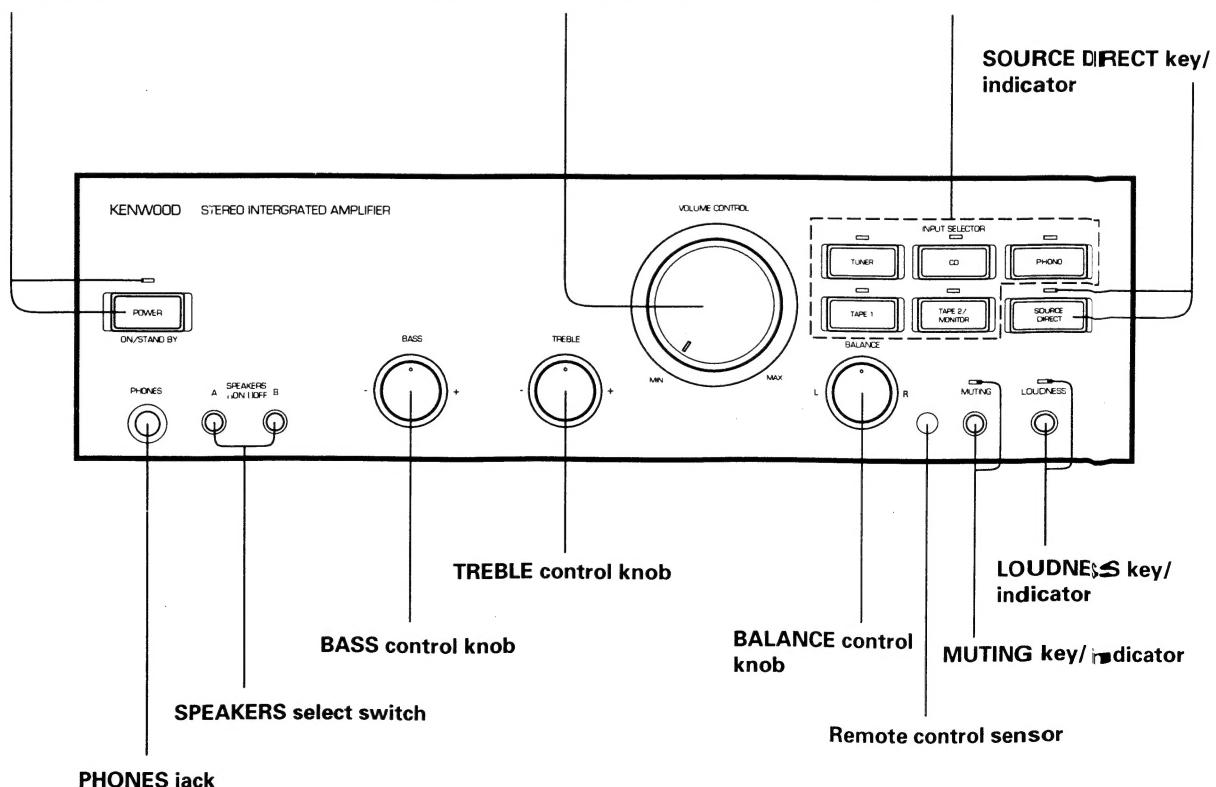
- AC plug adaptor 1
(Except for U. K., Australia and Europe)
For the unit with a European AC plug in areas other than Europe.
(E03 - 0115 - 05)



POWER key/indicator

VOLUME CONTROL knob

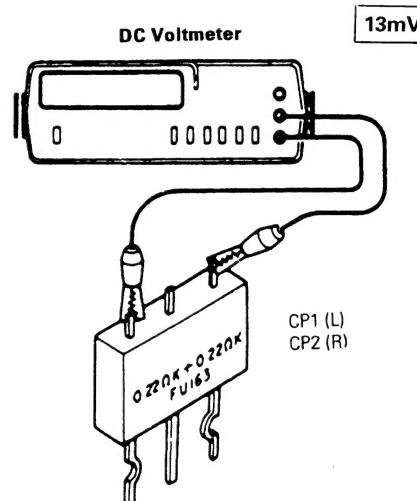
**INPUT SELECTOR keys/
indicators**



ADJUSTMENT**ADJUSTMENT**

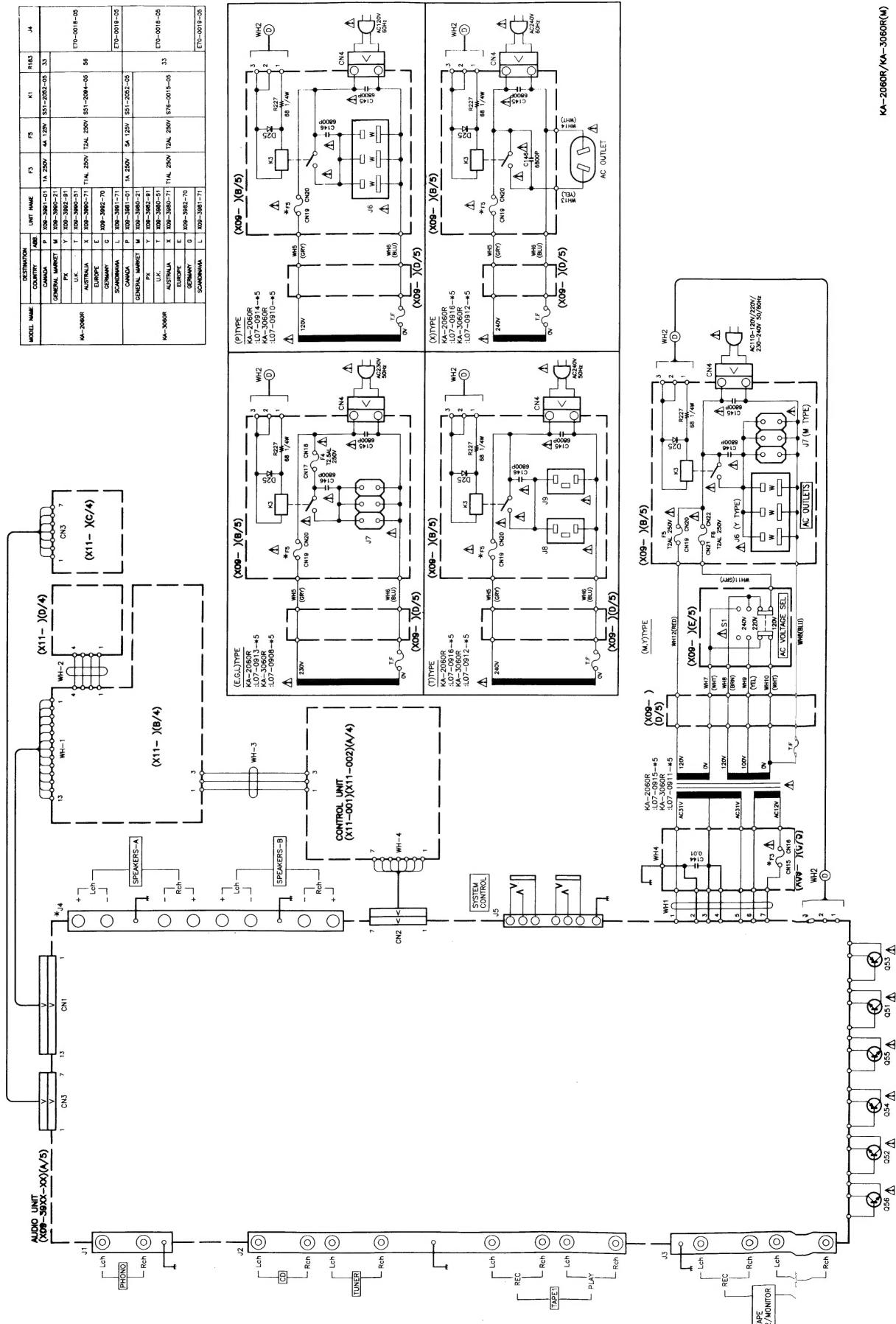
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows: POWER : ON SPEAKER : B REC OUT : OFF SELECTOR : PHONO							
1	IDLE CURRENT (KA-2060R)	-	Connect a DC voltmeter across TP 5, 6(L) TP 3, 4(R) (X09 -)	VOLUME : 0	VR1 (L) VR2(R) (X09 -)	13mV	(a)
1	IDLE CURRENT (KA-3060R)	-	Connect a DC voltmeter across CP1(L) CP2(R) (X09 -)	VOLUME : 0	VR1 (L) VR2(R) (X09 -)	13mV	(a)

Caution : Signal ground floats from chassis ground.
Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and / or measure the voltage.
(Don't connect ground of unit.)



KA-2060R/3060R

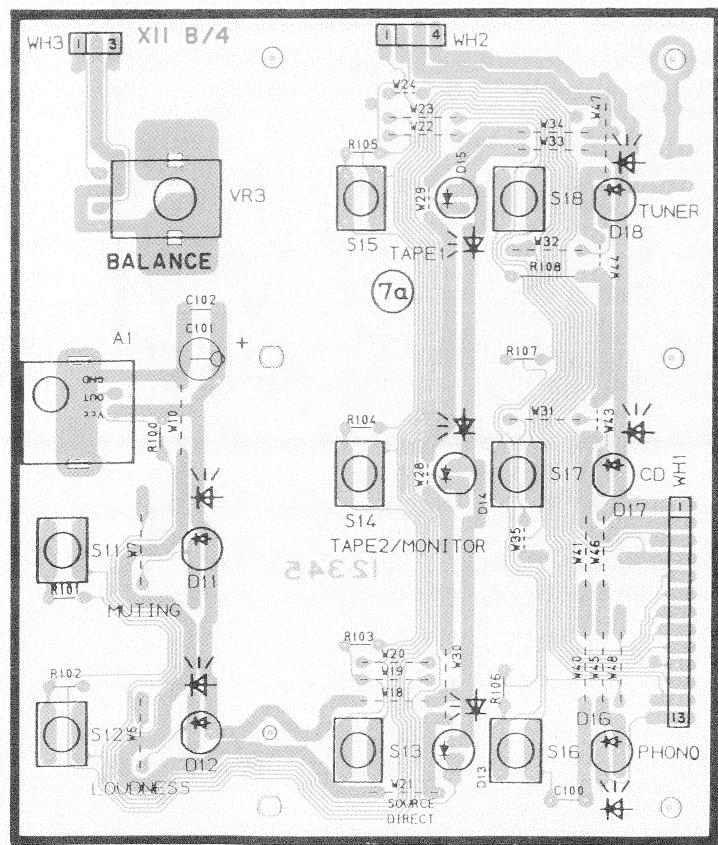
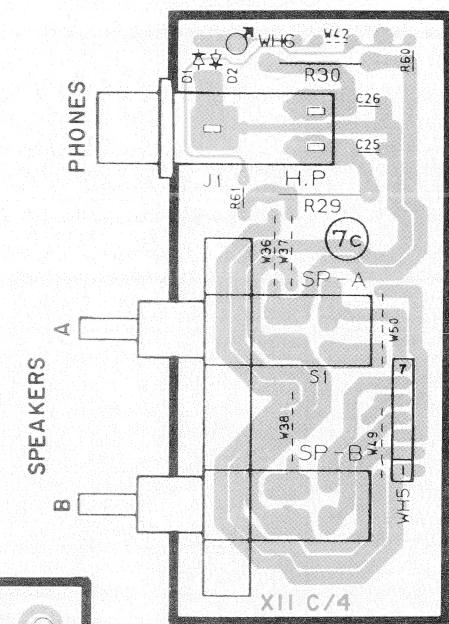
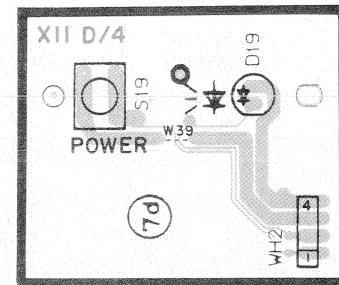
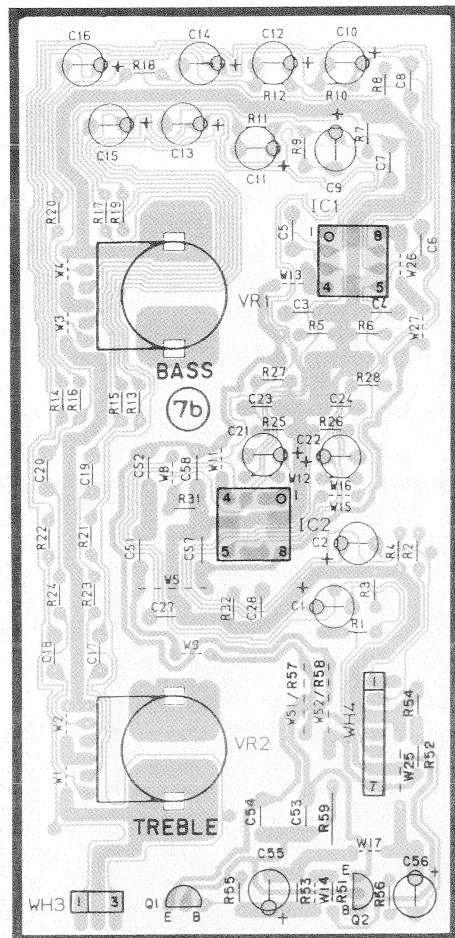
WIRING DIAGRAM



A B C D E F G H I J

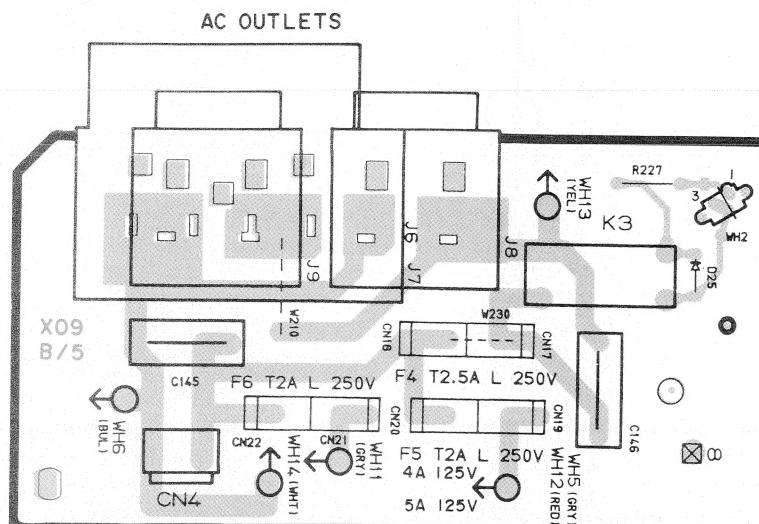
PC BOARD(Component side view) CONTROL UNIT(X11-00X)

XII-001
XII-002 A/4

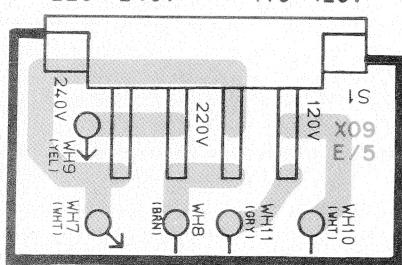


Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view) AUDIO UNIT(X09-39XX-XX)



VOLTAGE SELECTOR
220-240V \longleftrightarrow 110-120V



(a) Idle current : 13

DC voltmet

www.ocelotsoft.com

KA-20

(a) Idle current : 13

DC voltme

www.nature.com/scientificreports/

KA-306

(a) Idle current : 13

DC voltme

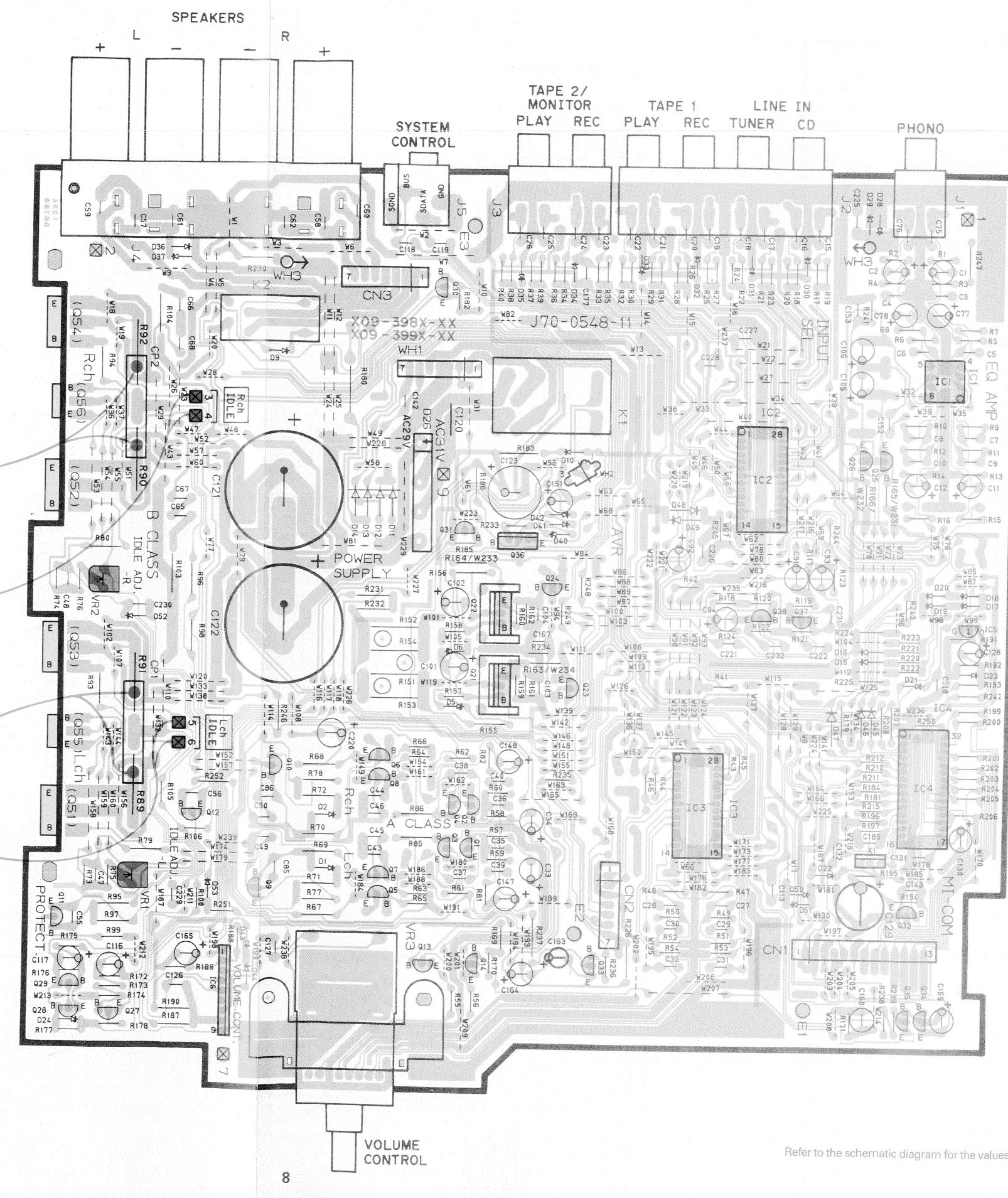
10 of 10

KA-206

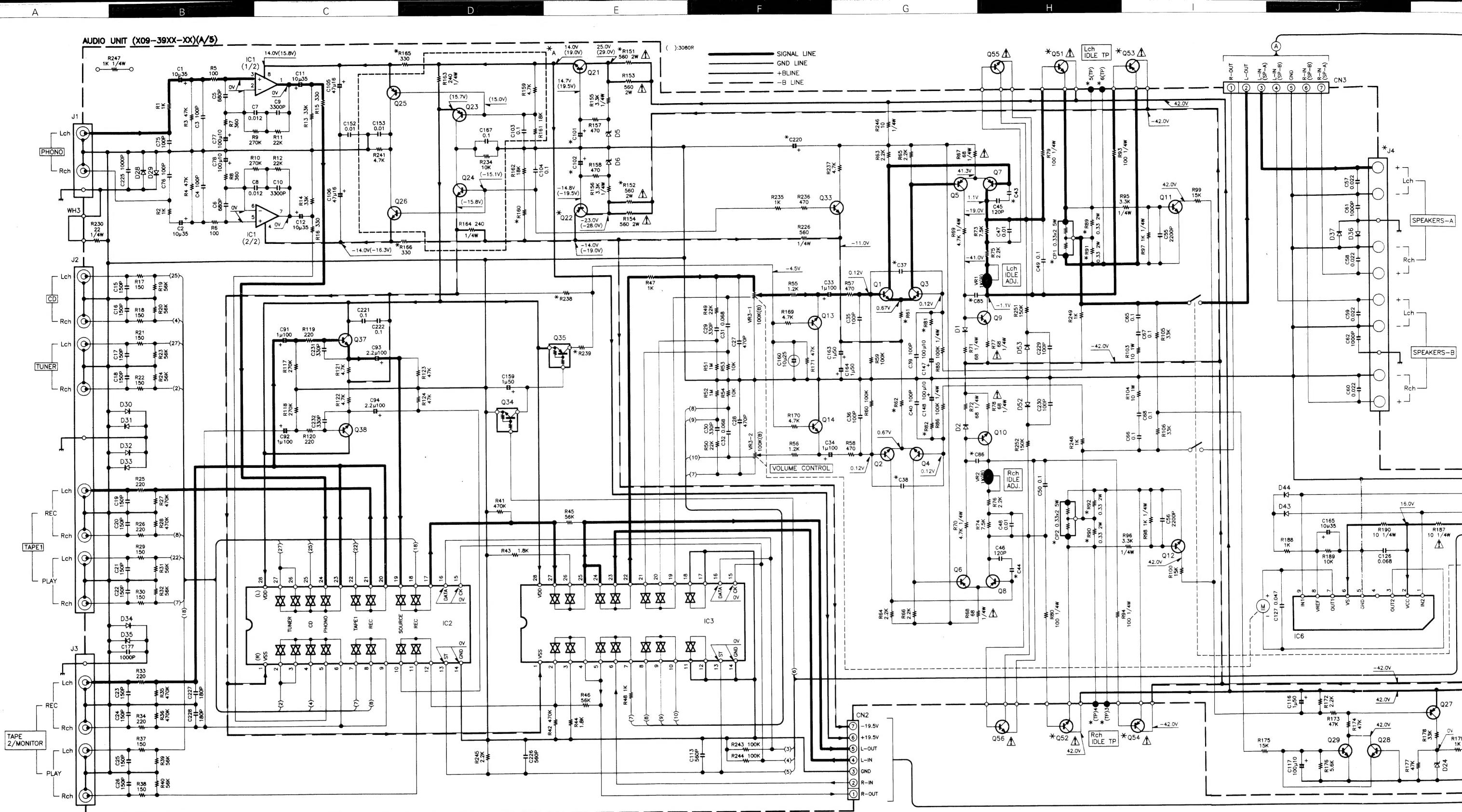
(a) Idle current : 13

Detailed description: This pedigree chart illustrates the inheritance of two traits: X09 (D/5) and WH15 (GRY). The pedigree starts with a female parent (♀) with WH16 (BUL) at the top left. An arrow points down to her first offspring, which has WH10 (MHT). From WH10 (MHT), an arrow points right to an offspring with WH9 (TEL). Another arrow points right from WH9 (TEL) to an offspring with WH12 (RED). At the bottom right, an arrow points up to a male offspring with WH7 (MHT). A final arrow points up from WH7 (MHT) to a female offspring with WH15 (GRY) at the top right.

X09 Uc15
CN16 CN15
F3 T1A L 250V
1A 250V
WH1

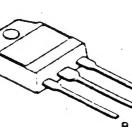


Refer to the schematic diagram for the values of resistors and capacitors.

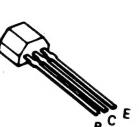


2SA934 2SC2060
2SA992 2SC2878
2SC1845
2SC2003

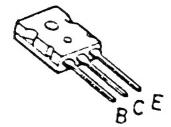
2SB1531BT*5
2SD2340BT*5



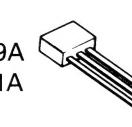
DTA124ES 2SC2458
DTC124ES
UN4112
2SA1048



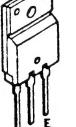
2SB1492BT*5
2SD2254BT*5



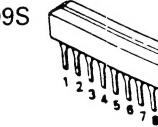
2SB1370
2SD2061
UN4212
2SA1309A
2SC3311A



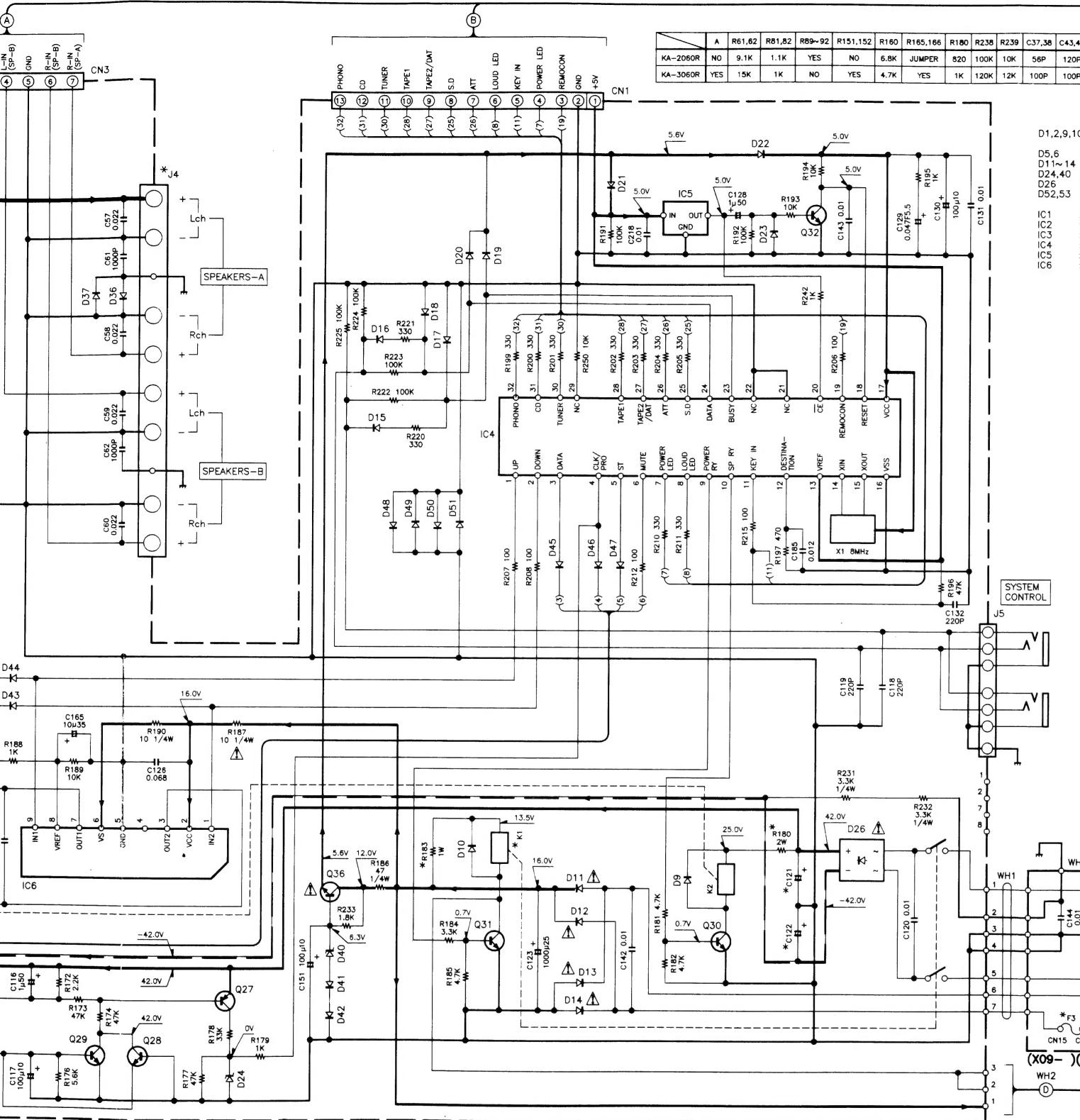
2SB1375
2SD2012



NJM4565D-D
TA8409S



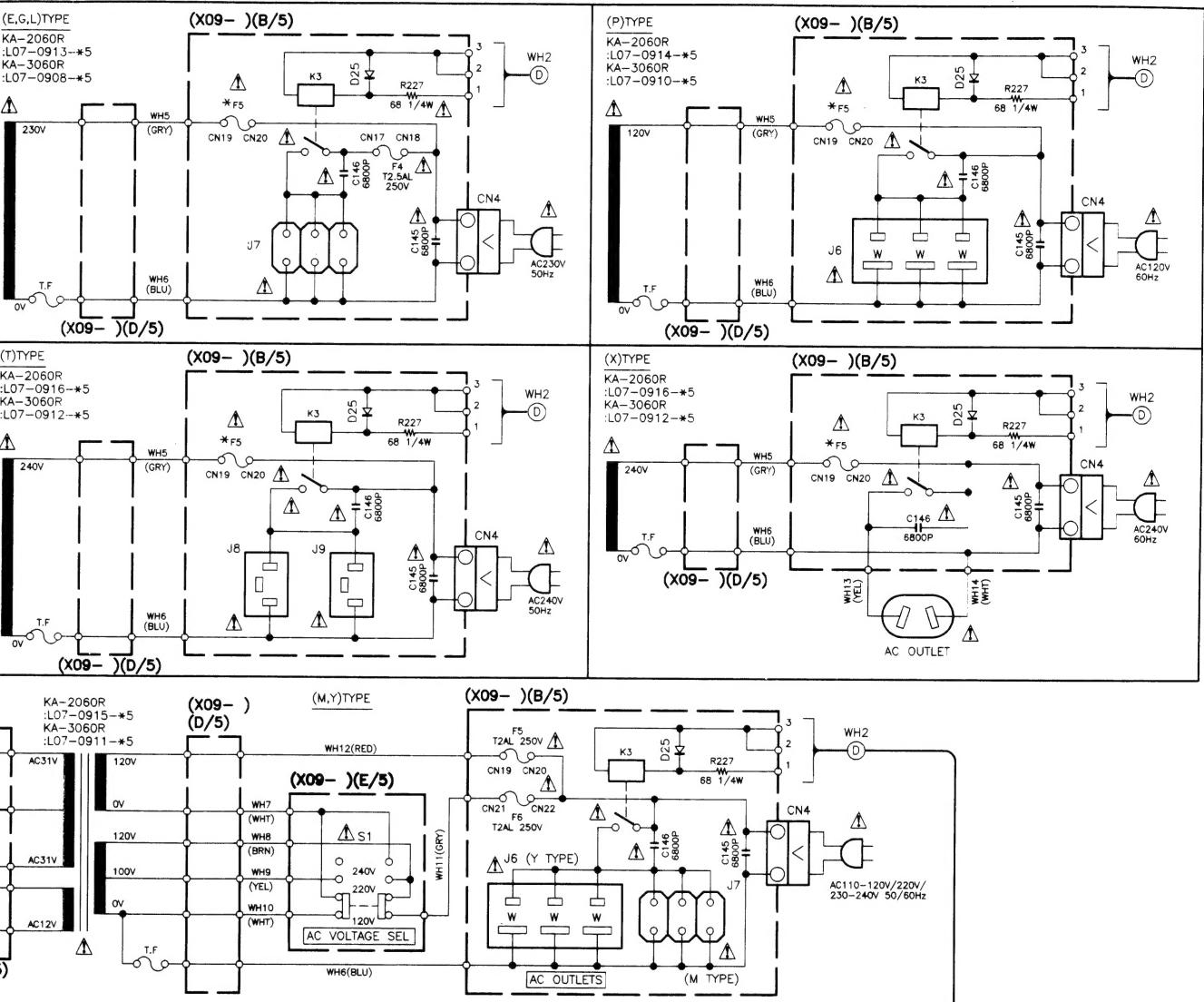
NJM458



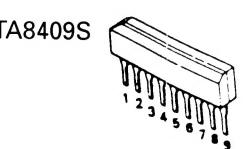
Signal ground floats from chassis ground. please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and / or measure the voltage. (Don't connect ground of unit.)

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

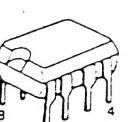
MODEL NAME	DESTINATION		UNIT NAME	F3	F5	K1	R183	J4
	country	abb						
KA-2060R	CANADA	P	X09-3991-01	1A 250V	4A 125V	S51-2052-05	33	E70-0018-05
	GENERAL MARKET	M	X09-3990-21					
	PX	Y	X09-3992-91					
	U.K.	T	X09-3990-51					
	AUSTRALIA	X	X09-3990-71	T1AL 250V	T2AL 250V	S51-2094-05	56	E70-0019-05
	EUROPE	E						
	GERMANY	G	X09-3992-70					
KA-3060R	SCANDINAVIA	L	X09-3991-71					E70-0018-05
	CANADA	P	X09-3981-01	1A 250V	5A 125V	S51-2052-05		
	GENERAL MARKET	M	X09-3980-21					
	PX	Y	X09-3982-91					
	U.K.	T	X09-3980-51					E70-0019-05
	AUSTRALIA	X	X09-3980-71	T1AL 250V	T2AL 250V	S76-0015-05	33	
	EUROPE	E						
	GERMANY	G	X09-3982-70					E70-0019-05
	SCANDINAVIA	L	X09-3981-71					



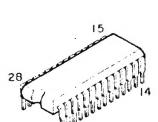
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



NJM4580D-D



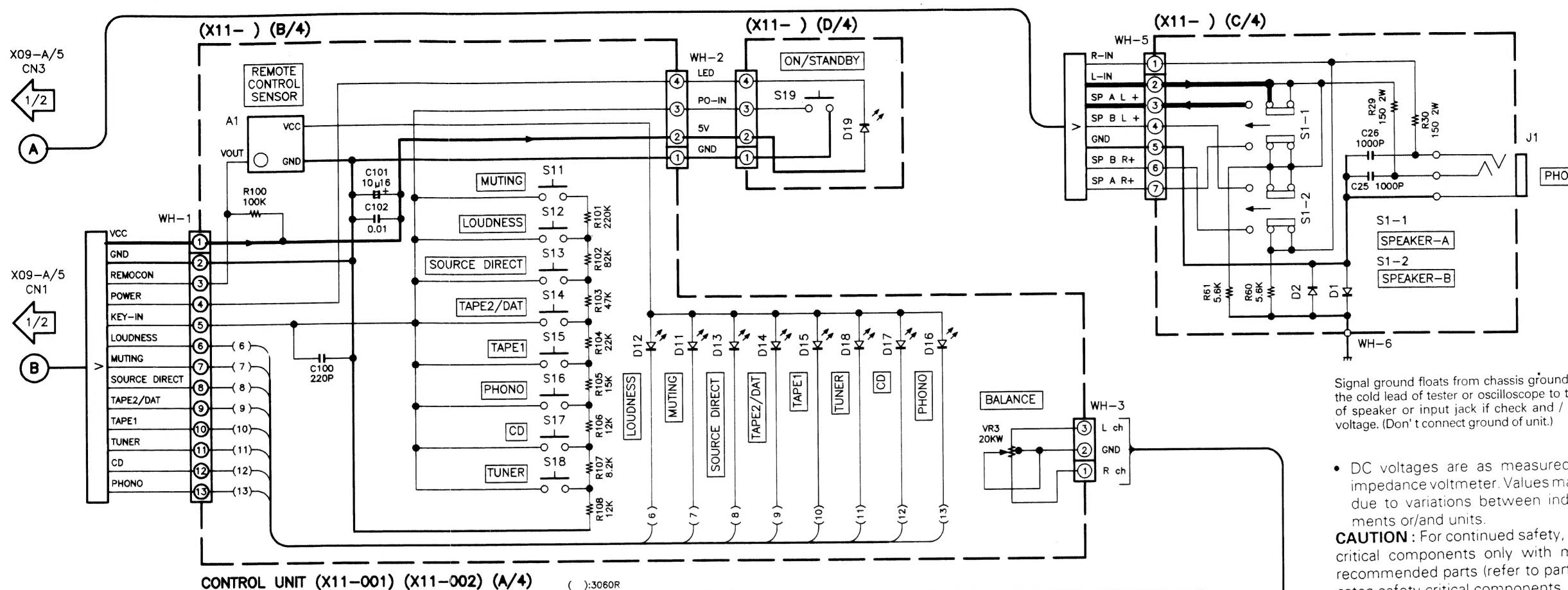
TC9162N
TC9164N



A schematic diagram of the S-80740AL component. It features a rectangular package body with three lead wires extending from the bottom right corner. The leads are labeled with the numbers 1, 2, and 3, indicating their respective pin assignments.

KA-2060R/3060R

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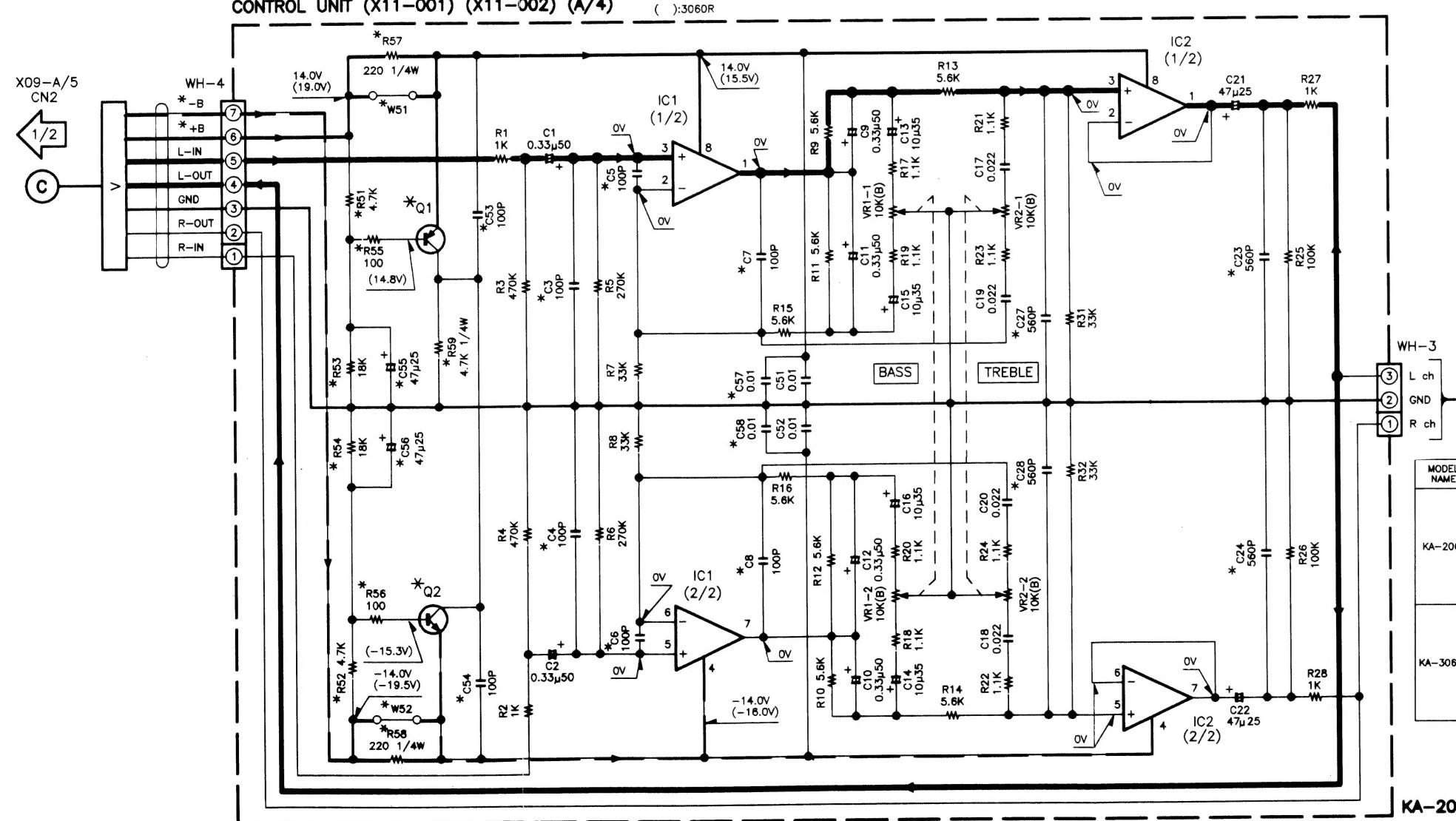
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). △ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

SIGNAL LINE
GND LINE
+B LINE
B LINE

IC1,2 : NJM4565D-D

Q1 : 2SA934(Q,R)
Q2 : 2SC2060(Q,R)

D1,2 : 1SS133
D11~19 : B30-1294-03



KA-2080R/3080R(M)(2/2)

KA-2060R/3060R

PARTS LIST

6

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Telle offre Parts No. werden nicht geliefert.

5

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Ref. No.	Address	Parts No.	Description	部品名／規格	Desti-nation 向け	Re-marks
参照番号	位位置	新	部品番号		部品番号	
D15 -23		HSS104	DIODE	CERAMIC	CK45FB1H681K	K
D15 -23		ISS133	DIODE	MYLAR	CQ92M1H237EL	J
D24		HZ55.1JS(B2)	ZENER DIODE	ELECTRO	CE04KW1V100M	35WV
D24		RDS5.1JS(B2)	ZENER DIODE	CERAMIC	CC45FSL1H151J	
D25		HSS104	DIODE	CERAMIC	CK45FB1H471K	K
D25		D5SB20F03	DIODE	MYLAR	CQ92M1H332EL	J
D26	-37	HSS104	DIODE	ELECTRO	CE04KW1V100M	10UF
D28	-37	ISS133	DIODE	CERAMIC	CC45FSL1H151J	150PF
D28		HZ55.1JS(B2)	ZENER DIODE	CERAMIC	CK45FB1H471K	K
D40	-51	RDS5.1JS(B2)	ZENER DIODE	MYLAR	CQ92M1H683EL	J
D41	-51	HSS104	DIODE	ELECTRO	CE04KW2A010M	1.0UF
D41	-51	ISS133	DIODE	CERAMIC	CC45FSL1H101J	100PF
D52	,53	HSS104A	DIODE	MYLAR	CQ92M1H104JEL	J
D52	,53	ISS131	DIODE	CERAMIC	CC45FSL1H560J	J
IC1		NJM4580D-D	IC(OP AMP X2)	MYLAR	CC45FSL1H101J	J
IC2		TC9164N	IC(16CH BILATERAL SELECTOR SW)	CERAMIC	CC45FSL1H223EL	K
IC3		M37470M4-189SP	IC(MICROSWITCH ARRAY)	MYLAR	CC45FSL1H102K	J
IC4		S-80740AL	IC(VOLTAGE DETECTOR)	CERAMIC	CC45FSL1H103Z	J
IC5		TA8409S	IC(MOTOR CONTROL)	MYLAR	CC45FSL1H104JEL	J
IC6	-4	2SC1845(F,E)	TRANSISTOR	CERAMIC	CK45FB1H222K	K
Q5	-8	2SA932(F,E)	TRANSISTOR	MYLAR	CC45FSL1H331J	J
Q9	-12	2SC1845(F,E)	TRANSISTOR	ELECTRO	CE04KW2A010M	100PF
Q13	,14	2SC2878(B)	TRANSISTOR	MYLAR	CQ92M1H102K	J
Q21		2SD2012	TRANSISTOR	ELECTRO	CE04KW1V100M	1.0UF
Q21		2SD2011(E,F)	TRANSISTOR	CERAMIC	CC45FSL1H101M	J
Q22		2SB1370(E,F)	TRANSISTOR	MYLAR	CC45FSL1H104JEL	J
Q23		2SA932(F,E)	TRANSISTOR	ELECTRO	CE04KW1A101M	100PF
Q24		2SC1845(F,E)	TRANSISTOR	CERAMIC	CC45FSL1H221J	K
Q25		2SA932(F,E)	TRANSISTOR	ELECTRO	CE04KW1A101M	100PF
Q26		2SC1845(F,E)	TRANSISTOR	CERAMIC	CC45FSL1H103P	J
Q27		2SA1048(Y,GR)	TRANSISTOR	ELECTRO	CE04KW1A102M	100UF
Q27		2SA1094A(Q,R)	TRANSISTOR	CERAMIC	CC45FSL1H102M	J
Q28	,29	2SC2458(Y,GR)	TRANSISTOR	ELECTRO	CE04KW1A103Z	1000UF
Q28	,29	2SC3111A(Q,R)	TRANSISTOR	CERAMIC	CC45FSL1H1473Z	J
Q30	,31	2SC2003(L,K)	TRANSISTOR	ELECTRO	CE04KW1H101M	50WV
Q32		2SC2558(Y,GR)	TRANSISTOR	BACKUP	CE04KW1A103Z	5.5WV
Q32		2SC3111A(Q,R)	TRANSISTOR	ELECTRO	CE04KW1A101M	100UF
Q32		2SC1845(F,E)	TRANSISTOR	CERAMIC	CC45FSL1H221J	Z
Q33		DTC124ES	DIGITAL TRANSISTOR	MYLAR	CQ92M1H103JEL	J
Q34		UN4212	TRANSISTOR	ELECTRO	CE04KW1H103Z	0.010UF
Q35		DTA124ES	DIGITAL TRANSISTOR	MYLAR	CE04KW1E100M	250VAC
Q35		UN4112	TRANSISTOR	NP-ELEC	C90-5568-05	1UF
Q36		2SD2012	TRANSISTOR	ELECTRO	CE04KW1A101M	100UF
Q36		2SD20161(E,F)	TRANSISTOR	ELECTRO	CE04KW1V100M	100UF
Q37	,38	2SC1845(F,E)	TRANSISTOR	MYLAR	CQ92M1H102JEL	J
Q51	,52	2SD2548T*5	TRANSISTOR	ELECTRO	CE04KW1V100M	1.0UF
Q53	,54	2SB1492BT*5	TRANSISTOR	MYLAR	CQ92M1H233EL	J
Q55	,56	2SC4137E19(V,W)	TRANSISTOR	CERAMIC	CC45FSL1H103Z	0.010UF
		AUDIO UNIT(X0X-399-X-XX)				
C1	,2	CE04KW1V100M	ELECTRO	MYLAR	CQ92M1H102JEL	50WV
C3	,4	CC45FSL1H101J	CERAMIC	ELECTRO	CE04KW1V100M	35WV

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Ref. No.	Address	Parts No.	Description	部品名／規格	Desti-nation 向け	Re-marks
参照番号	位位置	新	部品番号		部品番号	
C5 ,6		CK45FB1H681K	CERAMIC	6.00PF	K	
C7 ,8		CQ92M1H237EL	MYLAR	0.012UF	J	
C9 ,10		CE04KW1V100M	ELECTRO	3300PF	35WV	
C11 ,12		CC45FSL1H151J	CERAMIC	1.0UF		
C15 ,26		CK45FB1H471K	CERAMIC	150PF	J	
C27 ,28		CC45FSL1H331J	MYLAR	4.70PF	K	
C29 ,30		CQ92M1H1683EL	ELECTRO	330PF	J	
C31 ,32		CE04KW2A010M	MYLAR	0.068UF	100WV	
C33 ,34		CC45FSL1H101J	CERAMIC	1.0UF		
C35 ,36		CC45FSL1H101J	CERAMIC	1.00PF	J	
C37 ,38		CC45FSL1H560J	CERAMIC	56PF	J	
C39 ,40		CC45FSL1H101J	MYLAR	100PF	J	
C41 ,42		CC45FSL1H102J	CERAMIC	120PF	J	
C43 ,44		CC45FSL1H103Z	MYLAR	0.010UF	J	
C45 ,46		CC45FSL1H104JEL	CERAMIC	0.10UF	J	
C47 ,48		CC45FSL1H101J	MYLAR	100PF	J	
C49 ,50		CK45FB1H222K	CERAMIC	2200PF	K	
C55 ,56		CC45FSL1H223EL	MYLAR	0.022UF	J	
C57 ,58		CC45FSL1H101J	CERAMIC	1000PF	J	
C59 ,60		CK45FB1H102K	MYLAR	0.10UF	J	
C61 ,62		CC45FSL1H101M	ELECTRO	1.0UF	100WV	
C65 ,66		CC45FSL1H104JEL	MYLAR	100PF	J	
C75 ,76		CC45FSL1H101J	CERAMIC	100UF	J	
C77 ,78		CE04KW1A101M	ELECTRO	100UF	10WV	
C85 ,86		CC45FSL1H331J	MYLAR	330PF	J	
C91 ,92		CE04KW2A010M	ELECTRO	1.0UF	100WV	
C93 ,94		CE04KW2A02K	ELECTRO	2.20UF	100WV	
C101 ,102		CE04KW1E101M	ELECTRO	100UF	25WV	
C104		CQ92M1H104JEL	MYLAR	0.10UF	J	
C105 ,106		CE04KW1C470M	ELECTRO	4.70UF	1.6WV	
C113		CK45FB1H561K	MYLAR	560PF	K	
C116		CE04KW1C101M	ELECTRO	100UF	16WV	
C117		CE04KW1A101M	ELECTRO	100UF	10WV	
C118 ,119		CC45FSL1H221J	CERAMIC	0.010UF	P	
C120 ,121		CK45FSL1H102M	ELECTRO	4.700UF	50WV	
C123		CQ92M1H103Z	MYLAR	1000UF	J	
C126		CE04KW1A103Z	ELECTRO	1000UF	25WV	
C127		CK45FF1H1473Z	CERAMIC	0.047UF	Z	
C128		CE04KW1H101M	ELECTRO	1.0UF	50WV	
C129		CE04KW1H103Z	ELECTRO	0.047F	5.5WV	
C130		CE04KW1A101M	ELECTRO	100UF	10WV	
C131		CK45FF1H103Z	CERAMIC	0.010UF	Z	
C132		CC45FSL1H221J	CERAMIC	220PF	J	
C142 ,143		CQ92M1H103JEL	MYLAR	0.010UF	Z	
C144		CE04KW1E100M	NP-ELEC	6800PF	250VAC	
C145 ,146		C91-148-05	MF	100UF	10WV	
C147 ,148		CE04KW1A101M	ELECTRO	100UF	10WV	
C151		CE04KW1A101M	ELECTRO	100UF	10WV	
C152		CQ92M1H103Z	MYLAR	0.010UF	J	
C159		CE04KW1H103Z	ELECTRO	1.0UF	50WV	
C160		CE04KW1E100M	NP-ELEC	100UF	25WV	
C163		C90-5568-05	ELECTRO	1UF	50WV	
C164		CE04KW1V100M	ELECTRO	1.0UF	50WV	
C165		CE04KW1V100M	MYLAR	1000PF	J	
C177		CQ92M1H102JEL	ELECTRO	1000PF	J	
C185		CQ92M1H102JEL	MYLAR	0.012UF	J	
C218		CK45FF1H103Z	CERAMIC	0.010UF	Z	

L:Scandinavia	P:Canada	K:USA	R:Mexico	E:Europe	Y:AFES(Europe)	W:AFES(Europe)
V:F(X)(Far East, Hawaii)	T:England	E:Europe	X:Australia	G:Germany	X:Other Areas	Y:AFES(Europe)
X:AFES(Europe)						
△ indicates safety critical components.						
△ indicates safety critical components.						

2KA-2060R
3KA-3060R
△ indicates safety critical components.

2KA-2060R
3KA-3060R
△ indicates safety critical components.

△ indicates safety critical components.

PARTS LIST

9

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Part-No. werden nicht geliefert.

Ref. No.	Address	New Parts No.	部品番号	Description	部品名 / 规 格	Desti- nation	Re- marks
CONTROL UNIT(X11-00X)							
Q32		2SC2458(Y,GR)	TRANSISTOR				
Q33		2SC3311A(G,R)	TRANSISTOR				
Q34		DTC124ES	DIGITAL TRANSISTOR				
Q34		UNA212	TRANSISTOR				
Q35		DTA124BS	DIGITAL TRANSISTOR				
Q36	△ Q36 , 38	UNA112	TRANSISTOR				
Q37		2SD2012	TRANSISTOR				
		2SD2026I(E,F)	TRANSISTOR				
		2SC1845(F,E)	TRANSISTOR				
Q51	, 52	2SD2340BT*15	TRANSISTOR				
Q53	, 54	2SB1531BT*15	TRANSISTOR				
Q55	, 56	2SC4137F19(V,W)	TRANSISTOR				
C1	, 2	CB04K1H83M	ELECTRO	0.33UF	50W		
C3	-8	CC45FSL1H101J	CERAMIC	100PF	J		
C9	-12	CF42F1H101K	MF	100PF	K	2	3
C13	-16	CE04K1H83M	ELECTRO	0.33UF	50W		
		CE04K1V100M	ELECTRO	100F	35W		
C17	-20	CF92FV1HP23J	MF	0.022UF	J		
C21	, 22	CE04K1E47M	ELECTRO	47UF	25W		
C23	, 24	CF92FV1H861J	MF	560PF	J	3	2
C25	, 26	CK45FF1H861K	CERAMIC	560PF	K	2	2
C27	, 28	*	CF92EV115E61J	MF	560PF	J	3
C51	, 52	CK45FB1H861J	CERAMIC	560PF	J	3	2
C53	, 54	CK45FF1H1032	MF	0.010UF	J	3	2
C55	, 56	CK45FF1H1032	CERAMIC	0.010UF	K	3	3
C57	, 58	CK45FF1H1032	CERAMIC	0.010UF	Z	2	
C100		CC45FSSL1H221J	CERAMIC	220PF	Z		
C101		CE04K1C100M	ELECTRO	10UF	16W		
C102		CK45FF1H1032	CERAMIC	0.010UF	Z		
J1		Σ11-0190-05	PHONE JACK	PHONE			
R29	, 30	RS14KB3D1511TE	FL-PROOF RS	150	J 2W		
VR1	, 2	R06-3057-05	VARIABLE RESISTOR(BASS/TREBLE)				
VR3		R05-30-30-05	VARIABLE RESISTOR(BALANCE)				
S1		S42-2138-05	PUSH SWITCH				
S11	-19	S40-1064-05	PUSH SWITCH				
D1	, 2	1SS133	DIODE				
D11	, 19	B30-1294-05	LED				
IC1	, 2	NJM4565D-D	IC(OP AMP X2)				
Q1		2SA924(C,R)	TRANSISTOR				
Q2		2SC2060(Q,R)	TRANSISTOR				
A1		W02-1153-05	REMOTE SENSOR				

L:Scandinavia
Y:PX(Far East, Hawaii)
Y:AA(FSEurope)

K:USA
T:England
X:Australia
E:Europe
M:Other Areas
G:Germany

2KA-2060R
2KA-3060R

△ indicates safety critical components

SPECIFICATIONS

KA-3060R(For U. K. and Europe)

Continuous rated power output

(DIN) 1 kHz, at 8 Ω 60 W + 60 W
 at 4 Ω 80 W + 80 W

(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.

at 8 Ω 60 W + 60 W
 at 4 Ω 80 W + 80 W

Dynamic power 64 W (8 Ω)
 75 W (6 Ω)
 90 W (4 Ω)

Damping factor 40 (50 Hz)

Total harmonic distortion

..... 0.06% (20 Hz ~ 20,000 Hz, 50 W, 8 Ω)
 0.02% (1 kHz, 50 W, 8 Ω)

Intermodulation distortion 0.05% (50 W, 8 Ω)
 (70 Hz : 7 kHz = 4 : 1)

Frequency response

CD/TUNER/TAPE1, 2 5 Hz ~ 100 kHz, +0 dB, -3 dB
 PHONO 'RIAA' response 20 Hz ~ 20 kHz,
 +0.3 dB, -0.3 dB

Maximum input level

PHONO (MM) 130 mV, 0.5% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) 76 dB (IHF '66)
 77 dB (IHF '78)

CD/TUNER/TAPE1, 2 103 dB (IHF '66)
 81 dB (IHF '78)

PHONO (MM) 61 dB (DIN, 50 mW output)
 CD/TUNER/TAPE1, 2 63 dB (DIN, 50 mW output)

Input sensitivity/impedance

PHONO (MM) 2.5 mV/47 kΩ
 CD/TUNER/TAPE1, 2 200 mV/47 kΩ

Tone control

BASS ±10 dB (at 100 Hz)
 TREBLE ±10 dB (at 10 kHz)

Loudness control

(VOLUME at -30 dB level) +6 dB (100 Hz)
 +3 dB (10 kHz)

Output level/impedance

TAPE REC 200 mV/600 Ω

General

Power consumption 190 W

AC outlets

For U.K.

SWITCHED 2; (Total 200 W max.)

For Europe

SWITCHED 3; (Total 200 W max.)

Dimensions W: 440 mm (17-5/16")
 H: 133 mm (5-1/4")
 D: 303 mm (11-15/16")

Weight (net) 7.0 kg (15.4 lb)

KA-2060R(For U. K. and Europe)

Continuous rated power output

(DIN) 1 kHz, at 8 Ω 50 W + 50 W
 at 4 Ω 65 W + 65 W

(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.
 at 8 Ω 50 W + 50 W
 at 4 Ω 65 W + 65 W

Dynamic power 54 W (8 Ω)
 60 W (6 Ω)
 70 W (4 Ω)

Damping factor 40 (50 Hz)

Total harmonic distortion
 0.06% (20 Hz ~ 20,000 Hz, 40 W, 8 Ω)
 0.02% (1 kHz, 40 W, 8 Ω)

Intermodulation distortion 0.05% (40 W, 8 Ω)
 (70 Hz : 7 kHz = 4 : 1)

Frequency response
 CD/TUNER/TAPE1, 2 5 Hz ~ 100 kHz, +0 dB, -3 dB
 PHONO 'RIAA' response 20 Hz ~ 20 kHz,
 +0.3 dB, -0.3 dB

Maximum input level

PHONO (MM) 110 mV, 0.5% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) 75 dB (IHF '66)
 77 dB (IHF '78)

CD/TUNER/TAPE1, 2 103 dB (IHF '66)
 81 dB (IHF '78)

PHONO (MM) 61 dB (DIN, 50 mW output)
 CD/TUNER/TAPE1, 2 63 dB (DIN, 50 mW output)

Input sensitivity/impedance

PHONO (MM) 2.5 mV/47 kΩ
 CD/TUNER/TAPE1, 2 200 mV/47 kΩ

Tone control

BASS ±10 dB (at 100 Hz)
 TREBLE ±10 dB (at 10 kHz)

Loudness control

(VOLUME at -30 dB level) +6 dB (100 Hz)
 +3 dB (10 kHz)

Output level/impedance

TAPE REC 200 mV/600 Ω

General

Power consumption 170 W

AC outlets

For U.K.

SWITCHED 2; (Total 200 W max.)

For Europe

SWITCHED 3; (Total 200 W max.)

Dimensions W: 440 mm (17-5/16")
 H: 133 mm (5-1/4")
 D: 303 mm (11-15/16")

Weight (net) 6.5 kg (14.3 lb)

KA-2060R/3060R

SPECIFICATIONS

KA-3060R(For other countries)

Continuous rated power output	
From 20 Hz to 20,000 Hz	0.06% T.H.D.
at 8 Ω	50 W + 50 W
(IEC/NF) From 63 Hz to 12,500 Hz,	0.7% T.H.D.
at 8 Ω	60 W + 60 W
at 4 Ω	80 W + 80 W
Dynamic power	64 W (8 Ω) 75 W (6 Ω) 90 W (4 Ω)
Damping factor	40 (50 Hz)
Total harmonic distortion	0.06% (20 Hz ~ 20,000 Hz, 50 W, 8 Ω) 0.02% (1 kHz, 50 W, 8 Ω)
Intermodulation distortion	0.05% (50 W, 8 Ω) (70 Hz : 7 kHz = 4 : 1)
Frequency response	CD/TUNER/TAPE1, 2 5 Hz ~ 100 kHz, +0 dB, -3 dB PHONO 'RIAA' response 20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum input level	PHONO (MM) 130 mV, 0.5% T.H.D. at 1 kHz
Signal to noise ratio	PHONO (MM) 76 dB (IHF '66) 77 dB (IHF '78)
CD/TUNER/TAPE1, 2	103 dB (IHF '66) 81 dB (IHF '78)
Input sensitivity/impedance	PHONO (MM) 2.5 mV/47 kΩ CD/TUNER/TAPE1, 2 200 mV/47 kΩ
Tone control	BASS ±10 dB (at 100 Hz) TREBLE ±10 dB (at 10 kHz)
Loudness control	(VOLUME at -30 dB level) +6 dB (100 Hz) +3 dB (10 kHz)
Output level/impedance	TAPE REC 200 mV/600 Ω

General

Power consumption	190 W
AC outlets	SWITCHED 3; (Total 200 W max.) For Australia 1; (Total 200 W max.)
Dimensions	W: 440 mm (17-5/16") H: 133 mm (5-1/4") D: 303 mm (11-15/16")
Weight (net)	7.0 kg (15.4 lb)

Note : KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be change without notice.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the general market(M) standard, and provides information on regional circuit modification through use of alternate schematic diagrams and information on regional component variations through use of parts list.

KA-2060R(For other countries)

Continuous rated power output	
From 20 Hz to 20,000 Hz	0.06% T.H.D.
at 8 Ω	40 W + 40 W
(IEC/NF) From 63 Hz to 12,500 Hz,	0.7% T.H.D.
at 8 Ω	50 W + 50 W
at 4 Ω	65 W + 65 W
Dynamic power	54 W (8 Ω) 60 W (6 Ω) 70 W (4 Ω)
Damping factor	40 (50 Hz)
Total harmonic distortion	0.06% (20 Hz ~ 20,000 Hz, 40 W, 8 Ω) 0.02% (1 kHz, 40 W, 8 Ω)
Intermodulation distortion	0.05% (40 W, 8 Ω) (70 Hz : 7 kHz = 4 : 1)
Frequency response	CD/TUNER/TAPE1, 2 5 Hz ~ 100 kHz, +0 dB, -3 dB PHONO 'RIAA' response 20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum input level	PHONO (MM) 110 mV, 0.5% T.H.D. at 1 kHz
Signal to noise ratio	PHONO (MM) 75 dB (IHF '66) 77 dB (IHF '78)
CD/TUNER/TAPE1, 2	103 dB (IHF '66) 81 dB (IHF '78)
Input sensitivity/impedance	PHONO (MM) 2.5 mV/47 kΩ CD/TUNER/TAPE1, 2 200 mV/47 kΩ
Tone control	BASS ±10 dB (at 100 Hz) TREBLE ±10 dB (at 10 kHz)
Loudness control	(VOLUME at -30 dB level) +6 dB (100 Hz) +3 dB (10 kHz)
Output level/impedance	TAPE REC 200 mV/600 Ω

General

Power consumption	170 W
AC outlets	SWITCHED 3; (Total 200 W max.) For Australia 1; (Total 200 W max.)
Dimensions	W: 440 mm (17-5/16") H: 133 mm (5-1/4") D: 303 mm (11-15/16")
Weight (net)	6.5 kg (14.3 lb)

KENWOOD CORPORATION

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